Atty. Docket No.: VI/00-013

AMENDMENTS TO THE SPECIFICATION

Please replace the Title with the following new Title:

An Injection System Having A Pressure Isolation Mechanism And/Or A Handheld Controller

Please replace the third full paragraph, on page 18 beginning at line 13, with the following paragraph:

Another embodiment of an injector system 800 is illustrated in Figures 6A through 6H. In this embodiment (referring primarily to Figures 6A and 6G), a fluid control module 810 is in operative connection with a powered injector 830 to which a syringe 840 is connected as described above. Syringe 840 is in fluid connection with an automated valve 852 of fluid control module 810, which is also in fluid connection with a source of contrast 860 via an intermediate drip chamber 870. Drip chamber 87 preferably includes a fluid level sensing mechanism 880. A preferably automated valve/stopcock 852 such as known in the art is also in fluid connection with a first, inlet port 966 of lumen 954 of a pressure isolation valve 950. Valve 852 prevents saline and/or contaminated fluids from entering syringe 840 and enables the operator to stop flow of injection fluid (for example, contrast) from syringe 840 quickly at any pressure or flow rate. This ability to substantially immediately stop flow of injection fluid at any pressure and flow rate substantially removes the effects of system compliance and enables delivery of a "sharp" bolus. An air column detector 856 can be placed in line between stopcock 852 and pressure isolation valve 950.

Please replace the first full paragraph, on page 19 beginning at line 1, with the following paragraph:

Fluid control module 810 further includes a source of saline 890 in fluid connection with a peristaltic pump 900 via an intervening drip chamber 910. Drip chamber 910

preferably includes a fluid level sensing mechanism 920. Peristaltic pump 900 is in fluid connection with a preferably automated valve/stopcock 854, which is in fluid connection with pressure isolation valve 950. In addition to controlling flow of saline, valve 854 prevents contaminated fluids from reaching peristaltic pump 900 and saline source 890, which together can comprise a low pressure fluid delivery system. An air column detector 858 can be placed in line between stopcock 854 and pressure isolation valve 950.

Please replace the first full paragraph, on page 20 beginning at line 3, with the following paragraph:

Lumen 954, ~~(via~~ which defines a second, outlet port 968 ~~thereof)~~ of pressure isolation valve 950, is preferably in fluid connection with an automated or manual valve/stopcock 994, which preferably includes a waste port 996 as described above. Catheter 1100 is preferably connected via a rotating Luer connection 998.

Please replace the second full paragraph, on page 20 beginning at line 7, with the following paragraph:

Figure 6B illustrates a portion of a fluid path set for use in system 800 of Figure 6A in which a pressure transducer 980 is directly in the saline fluid path. Figure 6C illustrates a fluid path set for use in system 800 of Figure 6A in which pressure transducer 980 is separated from the saline fluid path by a "T" connector 952 and a length of tubing ~~954~~. In the embodiments of Figures 6B and 6C, spikes 976a and 976b are used to connect to contrast source 860 and saline source 890, respectively. In general, standard Luer connections are used to connect most of the components of system 800. In Figures 6B and 6C several of these Luer connections are illustrated in a disconnected state. Alternatively, one or more of the illustrated connections can, for example, be non-Luer or bonded connections.